

INDEX.

A.

- Abel, F. A., on the composition of some varieties of foreign iron, 202
 Abel, F. A., and C. L. Bloxam, contributions to the history of nitric acid, with especial reference to the valuation of nitre, 97.
 Acetaldehyde, 188.
 Acetate of biamidobenzoic acid, 272.
 — of stibtriethyl, 281.
 Acetamide and acetonitrile, action of sulphuric acid on, 243.
 Acetonitrile, preparation of, 242.
 Acid, amidobenzoic (benzamic), 269.
 — amylophoric, on, by F. Guthrie, 134.
 — amylophosphoric, preparation of free, 139.
 — anisoic, 186.
 — benzamic, preparation of, 264.
 — biamidobenzoic, 271.
 — binitrobenzoic, preparation of, 270.
 — chromic, action of on datiscetine, 233.
 — disulphanilic, 261.
 — disulphometholic, 245.
 — disulphometholic, identity of, with methionic acid, 263.
 — disulphobenzolic, 255.
 — disulphetholic, 250, 252.
 — disulphopropiolic, 253.
 — formic, on the formation and preparation of, 182.
 — hydrochloric, note on the solubility of sulphate of baryta in, by H. M. Noad, 15.
 — insolinic, on, by A. W. Hofmann, 210.
 — methionic, identity of, with disulphometholic acid, 263.
 — nitric, action of, on datiscine and datiscetine, 232.
 — action of, upon opianyl, 274.
 — action of fuming, on menaphthalamine, 12.
 — contributions to the history of, with especial reference to the valuation of nitre, by F. A. Abel and C. L. Bloxam, 97.

- Acid, nitrobenzoic, preparation of, 268.
 — oxalic, preparation of formic acid from, 182.
 — sulphanilic, 260.
 — sulphobutyric, 253.
 — sulphopropionic, 253.
 — sulphuric, action of, upon acetonitrile and acetamide, 243.
 — action of dilute, on datiscine, 228.
 — action of, and peroxide of lead upon opianyl, 276.
 — action of, on benzonitrile, 255.
 — on the action of, upon the amides and nitriles, by G. B. Buckton and A. W. Hofmann, 241.
 — action of, on menaphthalamine, 12.
 — action of, on aniline, 259.
 — thioformic, 185.
 Acids, $C_nH_nO_4$, preparation of aldehydes from the, 187.
 — conjugate sulpho-, remarks on, by G. B. Buckton and A. W. Hofmann, 256.
 Acorns, analysis of the ash of, 46.
 Affinity, on circumstances modifying the action of chemical, by J. H. Gladstone, 54.
 Alcohol, anisic, on, by S. Cannizzaro and C. Bertagnini, 190.
 Aldehydes, preparation of, from the acids $C_nH_nO_4$, 187.
 Aldehyde-ammonia, a compound produced from, and chloride of benzoyl, 265.
 Amides and nitriles, on the action of sulphuric acid on the, by G. B. Buckton and A. W. Hofmann, 241.
 Amidobenzoates (benzamates), 269.
 Ammonia, action of upon iodide of stibethyl, 278.
 — amylophosphate of, 139.
 Ammonium, disulphetholate of, 251.
 — disulphometholate of, 246.
 — examination of the mother-liquor of disulphometholate of, 247.
 — sulphobutyrate of, 253.
 — sulphacetate of, 247.
 — sulphopropionate of, 252.

- Amylophosphates, on the, by F. Guthrie, 134.
 Anderson, T., on some constituents of opium, 273.
 Andrews, T., on the composition and properties of ozone, 168.
 Aniline, action of sulphuric acid on, 259.
 Anisic alcohol, on, by S. Cannizzaro and C. Bertagnini, 190.
 Anisoate of baryta, 187.
 — of silver, 187.
 — of soda, 186.
 Antimony and copper, reciprocal precipitation of, 291.
 Ashes, analysis of the, of certain seeds and roots, 46.
 — analysis of the, of coffee and chicory, 46.
 Atacamite, on the action of heat on, by F. Field, 140.
 Atkinson, E., and A. Gössman, on lophine, 220.

B.

- Balance sheet of the Chemical Society, 162.
 Barium, disulphanilate of, 260.
 — sulphanilate of, 260.
 — disulphetholate of, 251.
 — disulphobenzolate of, 255.
 — disulphopropionate of, 253.
 — insolinate of, 212.
 — sulphacetate of, 247.
 — sulphobenzate of, 255.
 — sulphobutyrate of, 253.
 — sulphopropionate of, 253.
 Baryta, amidobenzate of, 269.
 — amylophosphate of, 138.
 — anisoate of, 187.
 — note on the solubility of sulphate of, in hydrochloric acid, by H. M. Noad, 15.
 Benzonitrile, action of sulphuric acid on, 255.
 — preparation of, 254.
 Benzoyl, on a new mode of formation of hydride of, by H. Kolbe, 266.
 — a compound produced from aldehyde, ammonia, and chloride of, 265.
 — on some compounds of, by Carl Voit, 268.
 — sulphocyanide of, 264.
 Bertagnini, C., and S. Cannizzaro, on anisic alcohol, 190.
 Berlé, F., on the stibamyls, 282.
 Berthelot, M., on the formation and preparation of formic acid, 182.
 Binitrobenzamide, 271.
 Binitrobenzoate of ethyl, 270.
 Bismuth and copper, reciprocal precipitation of, 291.

- Bloxam, C. L., and F. A. Abel, contributions to the history of nitric acid, with especial reference to the valuation of nitre, 97.
 Bowman, J. E., obituary notice of, 159.
 Bromide of stibtriamyl, 284.
 — of stibtriethyl, 281.
 Bromopianyl, 276.
 Buckton, G. B., and A. W. Hofmann, researches on the action of sulphuric acid on the amides and nitriles, together with remarks upon the conjugate sulpho-acids, 241.

C.

- Cadmium and copper, reciprocal precipitation of, 292.
 — and iron, reciprocal precipitation of, 293.
 — and lead, reciprocal precipitation of, 293.
 — and tin, reciprocal precipitation of, 293.
 Cadmium-ethyl, on, by J. Wanklyn, 193.
 Caffeine, quantity of, in raw coffee, 51.
 Calcium, insolinate of, 213.
 Campbell, D., T. Graham, and J. Stenhouse, chemical report on the mode of detecting vegetable substances mixed with coffee for the purposes of adulteration, 33.
 Campbell, D., on the source of the water of the deep wells in the chalk under London, 21.
 Cannizzaro, S., and C. Bertagnini, on anisic alcohol, 190.
 Caprylaldehyde, 189.
 Carbonate of stibtriethyl, 280.
 Carbonic oxide, formation of formic acid from, 182.
 Chemical affinity, on circumstances modifying the action of, by J. H. Gladstone, 54.
 Chemical notices, by H. Limpricht, 184.
 Chicory, action of chemical reagents on infusion of, 48.
 — analysis of the ash of, 46.
 — characters of, 53.
 — quantity of sugar in, 42.
 Chloride of benzoyl, a compound produced from aldehyde-ammonia, and, 265.
 — of cyanogen, action of, on naphthalamine, 8.
 — of iodine, action of, upon opianyl, 276.
 — of stibtriamyl, 283.
 — of stibtriethyl, 281.

- Chlorine, action of, upon opianyl, 275.
 Chloropianyl, 275.
 Church, A. H., and W. H. Perkin, on some new colouring matters, derivatives of dinitrobenzole, dinitronaphthaline, &c., 1.
 Clark, W. S., description of a self-acting washing bottle, 200.
 Coal-gas carbon and nitric acid voltaic battery, by J. L. and L. Wheeler, 198.
 Coffee, analysis of the ash of, 44.
 — chemical report on the mode of detecting vegetable substances mixed with, for the purposes of adulteration, by T. Graham, J. Stenhouse, and D. Campbell, 33.
 — silica in roasted, 43.
 — action of chemical reagents on infusion of, 48.
 — quantity of sugar in, 41.
 — quantity of caffeine in raw, 51.
 — bean, composition of the raw, 49.
 Colouring matters, on some new, derivatives of dinitrobenzole, dinitronaphthaline, &c., by A. H. Church and W. H. Perkin, 1.
 — powers, table of, of the various vegetable substances (roasted) dissolved in an equal quantity of water, 37.
 Conjugate sulpho-acids, remarks on the, by G. B. Buckton and A. W. Hofmann, 256.
 Copper and antimony, reciprocal precipitation of, 291.
 — and bismuth, reciprocal precipitation of, 291.
 — and cadmium, reciprocal precipitation of, 292.
 — and lead, reciprocal precipitation of, 292.
 — and silver, reciprocal precipitation of, 290.
 — and tin, reciprocal precipitation of, 291.
 Copper, disulphometholate of, 246.
 — amylophosphate of, 137.
 — insolinate of, 212.
 — on the action of heat on the oxychloride of, by F. Field, 140.
 Cyanogen, action of, on menaphthalamine, 12.

D.

- Dandelion-root, analysis of the ash of, 46.
Datisca cannabina, 226, 239.
 Datiscetine, action of chromic acid on, 233.
 — and datiscine, analyses of, 230.
 — action of nitric acid on, 232.
 — action of potash on, 233.

- Datiscetine, preparation and properties of, 229.
 Datiscine, action of sulphuric acid on, 228.
 — preparation and properties of, 227.
 Decamalee gum of Scinde, 238.
 Dessaigues, V., on methyluramine and its derivatives, 286.
 Dicymenaphthalamine, 13.
 Dinitrobenzole, action of nascent hydrogen on, 1.
 Dinitronaphthaline, on some new colouring matters derivatives of, 1.
 Disulphanilate of barium, 260.
 — of silver, 261.
 Disulphetholates, 251, 252.
 Disulphobenzolate of barium, 255.
 Disulphometholates, 245, 246.
 Disulphometholate of ammonia, examination of the mother-liquor of, 247.

E.

- Ethyl, binitrobenzoate of, 270.
 Ethylonaphthalamine, 264.

F.

- Ferricyanide of potassium, new method of making, by L. Playfair, 128.
 Field, F., analysis of a meteoric stone from the Desert of Atacama, 143.
 — on the action of heat on the oxychloride of copper (atacamite), 140.

G.

- Gardenine, 239.
Gardenia lucida, gum of, 238.
 Gladstone, J. H., on circumstances modifying the action of chemical affinity, 54.
 — some experiments illustrative of the reciprocal decomposition of salts, 144.
 Gössmann, A., and E. Atkinson, on lophine, 220.
 Graham, T., J. Stenhouse, and D. Campbell, chemical report on the mode of detecting vegetable substances mixed with coffee for the purposes of adulteration, 33.
 Gum of the *Gardenia lucida* (the Decamalle gum of Scinde), 238.
 Guthrie, F., on the sulphovimates, and on amylophosphoric acid and the amylophosphates, 131.

H.

- Heat, action of, on menaphthoximide, 15.
 — action of, on oxychloride of copper, 140.
 Hofmann, A. W., on insolinic acid, 210.
 — and G. B. Buckton, researches on the action of sulphuric acid upon the amides and nitriles, together with remarks upon the conjugate sulphoacids, 241.
 Hydride of benzoyl, on a new mode of formation of, by H. Kolbe, 266.
 Hydriodate of lophine, 223.
 Hydrobromate, hydrochloroplatinate, and hydriodate of menaphthalamine, 11.
 Hydrocarbon and stearopten of ptychotis ajovan, 235.
 Hydrochlorate of biamidobenzoic acid, 272.
 — of lophine, 223.
 — of menaphthalamine, 10.

I.

- India, examination of vegetable products from, by J. Stenhouse, 226.
 Insolinates, 210-215.
 Iodide of stibethyl, action of ammonia upon, 278.
 — of stibethyl, action of stibethyl upon, 278.
 — of stibtriethyl, 284.
 — of stibtriethyl, 281.
 Iodine, action of chloride of, upon opianyl, 276.
 Iodopianyl, 276.
 — estimation of sulphur in crude, 20.
 — on the composition of some varieties of foreign, by F. A. Abel, 202.

J.

- Johnston, F. W., obituary notice of, 157.

K.

- Kolbe, H., on a new mode of formation of hydride of benzoyl, 266.

L.

- Lead, action of sulphuric acid and peroxide of, upon opianyl, 276.
 — and cadmium, reciprocal precipitation of, 293.

- Lead, and copper, reciprocal precipitation of, 292.
 — and tin, reciprocal precipitation of, 292.
 — amylophosphate of, 135.
 — disulphetholate of, 251.
 — disulphometholate of, 246.
 Lime, amidobenzoate of, 270.
 Limpricht, N., chemical notices, 184, 264.
 Lophine and nitrate of silver, 225.
 — on, by A. Gössmann and E. Atkinson, 220.
 Lupins, analysis of the ash of, 46.

M.

- Magnesia, amidobenzoate of, 270.
 Maize, analysis of the ash of, 46.
 Meconine, identity of, with opianyl, 274.
 — preparation of, 273.
 Menaphthalamine, combinations of, 10.
 — metamorphoses of, 12.
 — preparation of, 8.
 — properties of, 10.
 Menaphthoximide, action of heat on, 14, 15.
 Merck, W., on the compounds of stibethyl, 278.
 Metals, on the reciprocal precipitation of, by W. Odling, 289.
 Meteoric stone, analysis of a, from the Desert of Atacama, by F. Field, 143.
 Methyluramine, on, and its derivatives, by V. Dessaignes, 286.

N.

- Naphthalamine, action of chloride of cyanogen on, by W. H. Perkin, 8.
 — preparation of, 8.
 Nitrate of biamidobenzoic acid, 272.
 — of lophine, 224.
 — of menaphthalamine, 11.
 — of stibtriethyl, 284.
 — of stibtriethyl, 281.
 — of silver, compound of, with lophine, 225.
 Nitre, contributions to the history of nitric acid, with especial reference to the evaluation of by F. A. Abel and C. L. Bloxam, 97.
 Nitriles and amides, on the action of sulphuric acid on the, by G. B. Buckton and A. W. Hofmann, 241.
 Nitrosenaphthyl, composition of, 7.
 — properties of, 6.
 Nitropianyl, 274.
 Nitrosophenyl, composition of, 4.
 — properties of, 2.

Noad, H. M., note on the solubility of sulphate of baryta in hydrochloric acid, 15.

O.

Obituary notice of Professor Bowman, 159.
— of Professor Johnston, 157.

Odling, W., on the reciprocal precipitation of the metals, 289.

Oenanthol, 189.

Opianyl, action of bromine upon, 276.

— action of chloride of iodine upon, 276.

— action of chlorine upon, 275.

— action of nitric acid upon, 274.

— action of sulphuric acid and peroxide of lead upon, 276.

— identity of, with meconine, 274.

Opium, on some constituents of, by T. Anderson, 273.

Oxalate of biamidobenzoic acid, 272.

— of menaphthalamine, 11.

Oxide of stibtriamyl, 283.

Oxychloride of copper (atacamite), on the action of heat on the, by F. Field, 140.

Oxide of stibtriethyl, 279.

Ozone, on the composition and properties of, by T. Andrews, 168.

P.

Paracyanogen-compound, on a, by L. Playfair, 129.

Parsnips, analysis of the ash of, 46.

Perkin, W. H., on the action of chloride of cyanogen on naphthalamine, 8.

— W. H., and A. H. Church, on some new colouring matters derivatives of dinitrobenzole, dinitronaphthalene, &c., 1.

Peroxide of lead, action of sulphuric acid and, upon opianyl, 276.

Phosphate of menaphthalamine, 11.

Playfair, L., on a new method of making ferricyanide of potassium and a paracyanogen compound, 128.

Platinum-salt of lophine, 224.

Potassium, disulphometholate of, 246.

— insolinate of, 213.

— and sodium, insolinate of, 214.

— new method of making ferricyanide of, by L. Playfair, 128.

Proceedings at the Meetings of the Chemical Society, 28, 163.

Potash, action of, on datiscine and datiscetine, 233.

Propionitrile, preparation of, 249.

Propylaldehyde, 188.

Ptychotis Ajowan, 234, 239.

R.

Reciprocal decomposition of salts, some experiments illustrative of, by J. H. Gladstone, 144.

Report of the Council of the Chemical Society, 157.

Roots, quantity of sugar in various sweet, 42.

S.

Salts, some experiments illustrative of the reciprocal decomposition of, by J. H. Gladstone, 144.

Seeds, quantity of sugar in various, 42.

Silica in roasted coffee, 43.

Silver, amylophosphate of, 136.

— and copper, reciprocal precipitation of, 290.

— and mercury, reciprocal precipitation of, 289.

— anisoate of, 187.

— compound of nitrate of, with lophine, 225.

— disulphanilate of, 261.

— sulphanilate of, 260.

— disulphetholate of, 252.

— disulphometholate of, 245.

— insolinate of, 211.

Soda, amidobenzoate of, 269.

— anisoate of, 186.

Sodium and potassium, insolinate of, 214.

Specific gravity of various vegetable infusions, 39.

Stearoptene of *Ptychotis Ajowan*, 235.

Stenhouse, J., examination of select vegetable products from India, 226.

— J., T. Graham, and D. Campbell, chemical report on the mode of detecting vegetable substances mixed with coffee for the purposes of adulteration, 33.

Stibamyls, on the, by F. Berlé, 282.

Stibbiaryl, 284.

Stibethyl, action of, upon iodide of stibethyl, 278.

— on the compounds of, by W. Merck, 278.

Stibtriamyl, 282.

Stibtriethyl, compounds of, 279-281.

Strontia, amidobenzoate of, 269.

Sugar, quantity of, in chicory and other sweet roots, 42.

— quantity of, in coffee, 41.

— quantity of, in various seeds, 42.

Sulphacetates of ammonium and barium, 247.

Sulphanilates, 260.

Sulphate of baryta, note on the solubility of, in hydrochloric acid, by H. M. Noad, 15.

Sulphate of biamidobenzoic acid, 272.
 — of lophine, 223.
 — of menaphthalamine, 11.
 — of stibtriamyl, 284.
 — of stibtriethyl, 281.
 Sulphide of stibtriethyl, 279.
 Sulpho-acids, remarks on the conjugate,
 by G. B. Buckton and A. W. Hofmann, 256.
 Sulphobenzoate of barium, 255.
 Sulphocyanide of benzoyl, 264.
 Sulphopropionate of barium, 253.
 Sulphovimates, on the, by F. Guthrie
 131.
 Sulphur, estimation of, in crude iron,
 20.

T.

Tin and cadmium, reciprocal precipitation of, 293.
 — and copper, reciprocal precipitation
 of, 291.
 — and lead, reciprocal precipitation of,
 292.

V.

Valeraldehyde, 189.
 Vegetable products from India, examination of, by J. Stenhouse, 226.
 Voit, C., on some compounds of benzoyl, 268.
 Voltaic battery, on a coal-gas carbon and nitric acid, by J. L. and L. Wheeler, 198.

W.

Wanklyn, J., on cadmium-ethyl, 193.
 Washing bottle, description of a self-acting, by W. J. Clark, 200.
 Water, on the source of the, of the deep wells in the chalk under London, by D. Campbell, 21.
 Wheeler, J. L. and L., on a coal-gas carbon and nitric acid voltaic battery 198.

Z.

Zinc, disulphometholate of, 246.

END OF VOL. IX.

